



# Brown Marsh Fact Sheet

## Facts About the Salt Marsh Dieback in Louisiana

### What is a "marsh dieback" and why is it called a "brown marsh"?

Recent aircraft reconnaissance and field surveys indicated that large areas of salt marsh are turning brown across Coastal Louisiana. This phenomenon could have profound consequences for economically important renewable resources and for the citizens of the region. Researchers and environmental planners from across the state are addressing this extraordinary and serious process.

### What is the cause of the dieback?

Smooth cordgrass (*Spartina alterniflora*) is the most abundant plant in the salt marsh of Louisiana. Therefore, any factors that affect these plants have the capacity for wide area impact. The precise cause of the current large area browning is not yet known, but there are working hypotheses that are being evaluated. Researchers are checking historical and scientific records for similar occurrences in Louisiana and nearby coastal states. Under normal circumstances smooth cordgrass is highly resistant to salt water; however, several climatic factors, especially the current prolonged drought, interact to stress the plants beyond their ability to recover. It may be that the stress served to weaken the plants, rendering them more susceptible to naturally occurring pathogens. Perhaps disease factors independent of climate are at play. Each of these possibilities is being evaluated. As other hypotheses present themselves, they too will be subject to rigorous scientific scrutiny.

### What area is affected?

The salt marshes between Point Au Fer near Atchafalaya Bay (Terrebonne Parish) and Timbalier Bay (Lafourche Parish) are most seriously affected at present.



### If marshes sometimes die back naturally, why is this dieback different?

Small areas of marsh are continually and naturally changing, dying, and regenerating. Also, most of the salt marsh in coastal Louisiana has been eroding and subsiding for decades from a variety of causes. The changes witnessed recently are over a much larger geographic area and much shorter time than current resource managers, fishermen, and scientists have previously noticed.

### What are some of the possible outcomes?

It is important to realize that any answers to this question at this time are highly speculative. Coastal marshes, including islands, tidal pools, and ponds, that provide breeding and nursery habitat for Louisiana's economically and ecologically important fisheries, are still intact. These areas also serve to protect coastal communities from the full fury of tropical storms and hurricanes. In the most optimistic view, the current brown marsh will recover quickly as the dead areas are recolonized by living plants still in the area. However, if the dieback continues and recovery does not take place in a timely fashion, coastal Louisiana's renewable natural resources will be threatened through large-scale habitat loss. Loss of the vegetation would also result in rapid subsidence and erosion of the unstable marsh soils, threatening coastal communities with direct exposure to the catastrophic force of hurricane winds and tidal surge.

### What is being done?

Although we currently do not know the cause of the marsh dieback, scientists believe it is related to a combination of stressors, possibly including complications resulting from prolonged drought conditions, combined with other unknown biological or environmental stress factors. A working group of resource managers and scientists has been established to address the problem of the marsh dieback.

### Where can I get more information?

Information is being consolidated at the Breaux Act web site [www.LAcoast.gov/brownmarsh](http://www.LAcoast.gov/brownmarsh) or call the Louisiana Governor's Office of Coastal Activities at 225-342-3968.